

*O. occidentalis* (Nutt.) Torrey, 217, 3901  
*Oxypolis fendleri* (Gray) Heller, 419-48,  
 94, 228, 530, 1092  
*Pseudocymopterus montanus* (Gray) C.  
 & R., 422-48, 519-48, 564-48, 6, 114,  
 385, 711, 723

## URTICACEAE

*Urtica gracilis* Ait., 201

## VALERIANACEAE

*Valeriana capitata* Pall. subsp. *acutiloba*  
 (Rydb.) F. G. Meyer, 5, 300, 404, 1050  
*V. edulis* Nutt. ex. T. & G., 1040, 1364,  
 1421

## VIOLACEAE

*Viola adunca* Sm., 540-48, 585-48, 590-48,  
 592-48, 2, 53, 58, 286, 567, 1241  
*V. adunca* Sm. subsp. *ashtonae* Baker,  
 212-48, 597-48  
*V. canadensis* L., 595-48, 26  
*V. nuttallii* Pursh, 586-48, 488-48, 591-48,  
 593-48, 12, 1221  
*V. palustris* L., 1425  
*V. rugulosa* Greene, 587-48, 589-48, 594-  
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## REVIEWS

*Manual of the Plants of Colorado*. By H. D. HARRINGTON. x + 666 pp., Sage Books, Denver. \$8.00.

The identification of plants in much of the Rocky Mountain area has been greatly hampered for many years by the lack of up-to-date manuals. The two manuals which have been of most value for Colorado, namely, Coulter and Nelson's "New Manual

of Rocky Mountain Botany" (1909) and Rydberg's "Flora of the Rocky Mountains and adjacent plains" (1917) are not only out of print but are considerably outdated in their nomenclature and taxonomy. A reflection of the need for an up-to-date treatment may be gained from a statement in the introduction of the present work that "about one out of every 30 species listed here constitutes a new record for the state or at least is not credited to Colorado in the monographs and manuals."

Dr. Harrington, Associate Professor of Botany and Curator of the Herbarium at Colorado A. & M. College, Fort Collins, has prepared analytical keys and complete descriptions for the identification of 2,794 species and 351 infraspecific taxa of ferns and flowering plants in the state. He has incorporated about 350 entities in the text for which he has seen no actual specimens from the state, but which are plants actually reported for Colorado or listed from adjacent areas and to be expected within the state. However, the source of these reported occurrences is not indicated.

Following the introduction there is a discussion of the vegetation zones in Colorado contributed by David F. Costello, Range Conservationist of the United States Forest Service. This provides a general topographic and floristic analysis of the vegetation with the characteristic taxa of the various vegetation types enumerated. A key to the families precedes the main taxonomic treatment and a complete glossary and index to common names and genera concludes the volume.

In the taxonomic treatment proper, which forms the bulk of the manual, established common names are employed (but none are coined) for families and genera. No common names, however, are given for species. Infraspecific taxa are cited as straight trinomials with their rank indicated in parentheses following the name. The place of publication for each species is given. The book has been printed by photo-offset from typescript and the small type (especially in the keys) is not easily read. Oftentimes, the impression is unevenly reproduced so that there are lighter or darker sections on the same page. Alignment of the right hand margins of the typescript would have improved the appearance of the finished text and would also have effected an economy with respect to the number of pages.

Dr. Harrington has maintained a fairly conservative viewpoint in his delimitation of taxa and much of the work is in accord with current treatments. He has wisely drawn upon the assistance of specialists for the accounts of some genera, either in whole or in part: *Scirpus* by Alan Beetle, *Juncus* by F. J. Hermann, *Salix* by E. C. Smith, *Oxytropis* and *Astragalus* by C. L. Porter, *Penstemon* by C. Wm. T. Penland, *Hymenoxys* by K. F. Parker, and *Balsamorhiza*, *Wyethia* and *Helianthella* by W. A. Weber. Likewise, contemporary taxonomic papers have been closely followed in the preparation of many other groups. The manual appears to be a careful compilation of existing knowledge regarding the Colorado flora, and notes of critical value, while limited, are scattered throughout the text. The distributions given for the various species are based on specimens actually studied and these seem to have been principally specimens in the herbaria of the Colorado-Wyoming area. Valuable collections of Colorado plants in some of the larger herbaria of the United States appear not to have been consulted. The reviewer has noted some Colorado collections cited in taxonomic papers from these larger herbaria which either extend the range of the species or establish an otherwise doubtful record for the state and which are not accounted for in the present manual. Although altitudinal ranges are given for most species, an arbitrary device is employed which divides the state into nine equiformal areas for describing the range of each species.

The ponderous size ( $8\frac{1}{2}$ "  $\times$  11" and 2" thick) scarcely makes the book a "manual" that can be used with ease in the field. The technical approach and the lack of illustrations, as well as the cost, may deter the lay student or interested amateur from using the book. Nevertheless, the manual represents a milestone in Colorado botany which should prove of much help to the professional taxonomist. It is to be hoped that it will provide a stimulus and a working foundation for much needed studies of a highly interesting and rich flora.—G. THOMAS ROBBINS, Department of Botany, University of California, Berkeley.